



11-01-07

WAF

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor: Bradford Giles Ackerman, et al.

Serial No: 09/844,947

Examiner: John Hoffman

Filing Date: April 27, 2001

Group Art Unit: 1731

Title: METHOD FOR PRODUCING  
TITANIA-DOPED FUSED  
SILICA GLASSMail Stop: Appeal Brief-Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

## BRIEF ON APPEAL COVER LETTER

Enclosed is Appellants Brief on Appeal of the Notice of Appeal that was filed on August 31, 2007.

Please charge the necessary fees of \$500.00 for filing the Brief on Appeal to our Deposit Account No. 03-3325. If there are any other fees due in connection with the filing of this Brief on Appeal, for example an extension of time to make this brief timely, please charge the fee(s) to our Deposit Account No. 03-3325.

Respectfully submitted,

Dated: October 31, 2007By: Walter M. Douglas**CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8:**

I hereby certify that this correspondence is being deposited with the United States Postal Service as Express Mail, No. EM087163937US, in an envelope addressed to Mail Stop Appeal Brief - Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on 10/31/07

Date of Deposit

Julie Henshaw  
Julie HenshawWalter M. Douglas  
Registration No. 34,510  
607-974-2431  
Corning Incorporated  
Patent Department  
SP-TI-03-01  
Corning, NY 14831

**APPEAL BRIEF  
PATENT  
October 31, 2007**

**Attorney Docket No.: SP01-095**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**Inventor:** Bradford Giles Ackerman, et al.

**Serial No:** 09/844,947

**Examiner:** John Hoffman

**Filing Date:** April 27, 2001

**Group Art Unit:** 1731

**Title:** METHOD FOR PRODUCING  
TITANIA-DOPED FUSED  
SILICA GLASS

Mail Stop: Appeal Brief-Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**BRIEF ON APPEAL**

This Brief supports the appeal to the Board of Patent Appeals and Interferences from the Final Rejection dated March 12, 2007, in the above application listed above, and the Advisory Action mailed August 9, 2007, maintaining all rejections. Appellants mailed, by First Class Mail, a Notice of Appeal on August 31, 2007 in accordance with 37 C.F.R. § 41.31. A Return Postcard bearing the Patent Office stamped date of September 4, 2007 was received. On October 17, 2007 Appellants received a Notice of Abandonment mailed October 11, 2007. On October 18, 2007 Appellants mailed, by Express Mail, a Petition for Revival of the present application on the grounds of a Patent Office error. The Petition included documentation, specifically the Patent Office stamped postcard, indicating that an Appeal was timely filed. As of the date of the

mailing of this Brief on Appeal appellants have not heard from the Patent Office regarding whether or not the Petition for Revival has been granted.

Accordingly, Appellants believe that the date for timely filing of their Brief on Appeal is October 31, 2007 based on Appellants Notice of Appeal filing date of August 31, 2007. Thus, Appellants submit this Brief is in accordance with 37 C.F.R. § 41.37.

**I. REAL PARTY IN INTEREST**

The real party in interest in this Appeal is Corning Incorporated, assignee of the entire interest in this application by virtue of an assignment recorded 08/21/2001 at Reel/Frame 012100/0096.

**II. RELATED APPEALS AND INTERFERENCES**

With respect to the appeals or interferences that will directly affect, or be directly affected by, or have a bearing on the Board's decision in this appeal, there are no such appeals or interferences.

**III. STATUS OF CLAIMS**

Claims 1-2, 4-9, 13, 15, 20, 21, and 23-24 are pending in the application.

**Claims 1-2, 4-9, 13, 15, 20, 21, and 24 are under appeal.**

***Claim 23 is withdrawn from appeal and hereby cancelled.***

Claims 3, 10-12, 12, and 23 were previously cancelled.

Claims 16-19 were withdrawn from consideration due to a restriction requirement.

The present application was filed on April 27, 2001 with claims 1-19. An Office Action with a Restriction Requirement was mailed September 15, 2003, and in their Response applicants (now the Appellants) withdrew from consideration claims 16-19 with reservation of right to file a divisional application, cancelled claims 3, 10-12 and 14, and added new claims 20-23. A Final Office Action was mailed February 13, 2004 and applicants replied on April 13, 2004. Applicants received an Advisory Action mailed April 29, 2004 advising that the Final rejection would be maintained and the amendment would not be entered because it raised new issues.

Applicants filed a Request for Continued Examination on May 13, 2004 and received an Office Action mailed May 29, 2004. Applicants replied on September 21, 2004 and received a Final Office Action mailed January 21, 2005. Applicants filed a response on March 11, 2005 and received an Advisory Action mailed March 29, 2005 indicating that the Final Rejection of the claims would be maintained and that the amendments submitted in applicants' Response would not be entered because they raised new issues that would require further consideration and/or search. Applicants filed their First Notice of Appeal on April 11, 2005. On June 3, 2005 applicants timely filed a Brief on Appeal. Between June 3, 2005 and April 12, 2006 the Brief on Appeal was revised four times pursuant to a Notice from the Patent Office and filed the new Brief(s), the last filing being April 12, 2006.

Applicants received an Office Action mailed June 6, 2006 indicating that in view of their Appeal Brief of April 12, 2006, **prosecution was reopened** and new grounds for rejection were given. Applicants replied on October 25, 2006, received a Notice of Non-compliant Amendment mailed December 14, 2006 and replied to the

Appeal Brief  
October 31, 2007  
Application No. 09/844,947

Notice on December 21, 2006. Applicants received a Final Rejection mailed March 12, 2007 and replied to the Rejection on May 23, 2007. Applicants received an Advisory Action mailed August 9, 2007. Applicants replied to the Advisory Action by mailing a Notice of Appeal (with a request for an extension of time) with a Return Postcard on August 31, 2007. The Postcard was returned indicating that the Notice of Appeal and other papers were received by the Patent Office on September 4, 2007.

On October 17, 2007 applicants received a Notice of Abandonment mailed October 11, 2007. On October 18 2007 applicants filed a Petition For Revival Of An Unavoidable Abandoned Patent Application, indicating their belief that the abandonment was due to a Patent Office Error. A copy of the Return Postcard bearing the Patent Office stamp was enclosed as proof that the Appeal was time made. At the present time applicants, now Appellants, have not received a reply from the Patent Office regarding their Petition for Revival.

Appellants now submit this Brief on Appeal in order to be timely in with regard to its submission and further in the belief that their Petition for Revival will be granted.

In view of the fact that applicant last amendment of May 23, 2007 was not entered by the Examiner, the claims under appeal are those that were present in the application prior to May 23, 2007.

**A copy of the claims under appeal is attached in the appendix.**

#### **IV. STATUS OF AMENDMENTS**

Appellants Amendment after Final Rejection was filed on May 23, 2007 and has not been entered. Thus, for purposes of this Appeal the Amendment filed May 23,

*2007 should be considered as not having been made due to the Examiner's rejection of the Amendment and statement that further prosecution would require an additional search. The claims presented herein are those that existed at the time the Final Office Action was issued*

#### **V. SUMMARY OF CLAIMED SUBJECT MATTER**

Claim 1 is the only independent claims. Claims 2, 4-9, 13, 15, 20, 21, and 23-24 depend on claim 1 either directly or indirectly through another dependent claim. The claimed invention relates to a method for producing a fused silica glass containing titania (a SiO<sub>2</sub>-TiO<sub>2</sub> glass).

Claim 1 is directed to a method for producing a fused silica glass containing titania [page 2, lines 17-18] by synthesizing particles of silica and titania by delivering a mixture of a silica precursor and a titania precursor to a burner [page 2, lines 18-19; page 3, lines 3-5; page 4, lines 4-14; and page 5, lines 1-3]; growing a column of a porous preform [page 3, lines 19-21 and page 5, lines 1-13 and **particularly lines 5-6** in combination with Figures 1 and 2, numeral 40 showing the column growing] by successively depositing the particles on a deposition surface [page 2, lines 19-21; page 3, lines 5-6; and page 4, lines 15-24; (a *deposition surface is also called a "bait" by those skilled in the art*)] at a temperature below the minimum temperature at which the particles can consolidate into a glass [page 3, lines 8-10 and original claim 3] while successively translating the deposition surface away from the burner [page 3, lines 19-22; page 3, line 19; page 4, lines 19-24; and page 5, lines 6-8]; and subsequently

consolidating the porous preform into dense glass [page 2, line 21-22; page 3, lines 5-6; and page 5, lines 14-19].

Claim 2 depends on and further limits claim 1. Claim 2 states that the translation speed of the deposition surface is adjusted to maintain a substantially constant distance between an end portion of the porous preform remote from the deposition surface {a.k.a. "bait"} and the burner during deposition [page 4, lines 21-26 for all].

Claim 4 depends on and further limits claim 1. Claim 4 states that the consolidation of the porous preform is carried out at a temperature in the range of 1200 to 1900 °C [page 5, lines 16-19].

Claim 5 depends on and further limits claim 1. Claim 5 states that the porous preform can be dehydrated by exposing the porous preform to a heated, halide-containing atmosphere prior to consolidation [page 3, lines 10-13 and lines 21-22; and page 5 lines 15-26].

Claim 6 depends on and further limits claim 5. Claim 6 states that the halide-containing atmosphere comprises chlorine [page 5, lines 14-24].

Claim 7 depends on and further limits claim 5. Claim 6 states that the halide-containing atmosphere comprises fluorine [page 5, line. 24-26].

Claim 8 depends on and further limits claim 5. Claim 8 states that the temperature of the heated, halide-containing atmosphere is in the range of from 900 to 1100 °C [page 5, lines 21-22].

Claim 9 depends on and further limits claim 1. Claim 9 states that the glass contains 2 to 12% by weight titania [page 5, lines 27-28].

Claim 13 depends on and further limits claim 5. Claim 13 states that the translation speed of the deposition surface is adjusted to maintain a substantially constant distance between an end portion of the porous preform remote from the deposition surface {a.k.a. "bait"} and the burner during deposition [page 4, lines 21-26 for all].

Claim 15 depends on and further limits claim 5. Claim 15 states that the consolidation of the porous preform is carried out at a temperature in the range of 1200 to 1900 °C [page 5, lines 16-19].

Claim 20 depends on and further limits claim 1. Claim 20 states that the minimum [consolidation] temperature is 1200 °C [page 5, lines 16-18 which indicates that the minimum temperature for consolidation is 1200 °C].

Claim 21 depends on and further limits claim 20 [page 3, lines 8-10 in combination with page 1, line 28, to page 2 line 2, which indicate that conventional boule consolidation temperatures are 1200 to 1900 °C].

Claim 23 is withdrawn from appeal and cancelled.

Claim 24 depends on and further limits claim 1. Claim 24 states that the deposition surface is rotated relative to the burner which successively depositing the particles on the deposition surface [page 2, lines 21; page 3, line 19; and 4, lines 19-23]



**VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

**A. Claims 1-2, 4-9, 13, 15, 20, 21, and [23]-24 stand rejected under 35 U.S.C. §112, first paragraph.**

The Examiner has stated that claims 1-2, 4-9, 13, 15, 20, 21, and [23]-24 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. That is, the claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

The Examiner states:

**1<sup>st</sup> s Statement (Final Office Action, page 2, lines 8-12)**

“Examiner could find no support for the claimed “column of solid porous perform”, or “solid porous”, “successively translating”, “a deposition surface at a temperature below the minimum temperature at which the particles can consolidate” - either explicit or implicit. This is deemed to be a *prima facie* showing of failure to comply with the requirement.” [Office Action of 03/12/07, page 2, approximately lines 13-18.]

The Examiner further states:

**2<sup>nd</sup> Statement**

“Moreover, it is clear that at least the temperature limitation and “while successively translating” cannot be implicitly supported - because they are impossible. The terms “while” and “successively” are two mutually exclusive conditions: ‘while’ means simultaneously, and “successively” means following each other. Nor can a translation be successive with itself - at best it would have to be successive with some other translation. But there is no support for two successive translations (that the Examiner can find) - Applicant cannot now claim two successive translations when the specification does not provide support therefor. As to the temperature limitation, the particles could not stick to the support or to each other if the temperature is as low as claimed. In other words, Applicant is correct in arguing that Blackwell does not meet the temperature limitation - but for the same reason. Applicants’ invention does not provide support therefor.” [Office Action of 03/12/07, page 2, approximately line 19 to page 3, line 7.]

The Examiner additionally states:

**3<sup>rd</sup> Statement**

“Either something is solid or it is porous, it cannot be “solid porous - or if it could possibly be, there would have to be support for such in the specification. The only mention of “solid” in the specification that the Examiner could find if in reference to dense, solid glass.” [Office Action of 03/12/07, page 3, lines 8-11.]

The Examiner further states:

**4<sup>th</sup> Statement**

“There is no support for claims 20-21. Applicant does not dispute this, thus it deemed that applicant acquiesces on this point.”

- B. Claims 1-2, 4-9, 13, 15, 20, 21, and 23-24 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claims the subject matter which applicants regard as the invention.**

The Examiner states:

**5<sup>th</sup> Statement**

In his fifth statement the Examiner stated that “Applicants has not disputed this rejection, thus it deemed that applicant

acquiesces that the claims fail to particularly point out and distinctly claim the subject matter.”

**6<sup>th</sup> Statement**

“Claim 1: it is not understood that is meant by “column of solid porous preform” - is unclear if it means “column of solid glass or a porous preform”, or “a porous column of solid preforms” or something else. As alluded to above, the term “solid porous” is indefinite as to its meaning. And, it is unclear what is meant by “while successively” - since these two words connote mutually exclusive conditions (see above).”

**7<sup>th</sup> Statement**

“Claim 5: it is unclear if the ‘consolidation’ refers to the consolidating step or claim 1, or if it is open to any consolidation.”

**8<sup>th</sup> Statement**

“Claim 21: There is noted that there is no antecedent basis for “the temperature at which the particles are deposited” = it is unclear if the claim is directed to the actual deposition temperature, or if it is directed to the temperature of the deposition surface.”

**C. Art Rejections: 35 U.S.C. § 102 or 103**

**NONE**

**VII. ARGUMENTS**

*For the convenience Board of Patent Appeals and Interferences (the "Board") convenience, a copy of the (1) Final Office of March 12, 2007, Appellants' Response of May 23, 2007, and Appellants Response of December 2, 2006 are attached in the Evidence Appendix. These attachments are necessary for a complete showing that Appellants have fully replied to all rejections and that the Examiner's statements in the Final Office Action the Appellants did not response to certain items is incorrect.*

**A. 35 U.S.C. §112, first paragraph rejections - Appellants Response.**

In support of the arguments made herein, Appellants' have included complete copy of their Response of May 23, 2007 in the Evidence Appendix.

*In Moba B.V. v. Diamond Automation Inc.*, 66 USPQ2d 1419, 1437 (Fed. Cir. 2003) the Court of Appeals for the Federal Circuit reiterated that a "patent specification must contain an adequate written description. 35 U.S.C. §112, ¶ 1 (1994). The court further stated that "The written description requirement does not require the applicant 'to describe exactly the subject matter claimed, [instead] the description must clearly allow persons of ordinary skill in the art to recognize that [he or she] invented what is claimed'" *Id* at 1439 (brackets in the text, citation omitted in text). The court went on to say, in reference to *Enzo [Enzo Biochem, Inc v. GenProbe, Inc]*, 63 USPQ2d 1609 (Fed. Cir. 2002)] and *Amgen [Amgen, Inc. v. Hoechst Marion Roussel, Inc.]*, 65 USPQ2d 1385, 1387 (Fed. Cir. 2003)], that "the record showed that the specification

that taught one of skill in the art to make and use the invention also convinced the artisan that the inventor possessed the invention.” In the present case, Appellants’ specification, read together with the figures, teaches one of skill in the art the claimed method of aking titania-doped silica glass as will be shown by citations below to the specification and figures.

The court further stated thatThe court further stated that “the patent specification must disclose information sufficient to enable those skilled in the art to make and use the claimed invention. Id at 1439. In addition the court

**Examiner’s 1<sup>st</sup> Statement**

Appellants submit that the Examiner is mistaken in his conclusions and that all the terms in the Examiner’s 1<sup>st</sup> Statement are supported by the specification and would be understood by one skilled in the art. Further, Appellants assert that it is well understood that the claims must be read in light of the specification and the figures that may accompany it. In the present case the specification is accompanied by two (2) drawings.

Claim 1 states that the a column of a solid porous preform is grown by successively depositing the particles on a deposition surface at a temperature below a minimum temperature at which the particles can consolidate either partially or fully into dense glass while successively translating the deposition surface away from the burner.

Appellants now refer to the specification on page 4, lines 15-24, and Figures 1 and 2 which describe and illustrate the formation of the solid porous preform 40 by the

deposition of the soot from burners 28 on the deposition surface (“bait”) 34 which is attached by a pin 35 to a spindle 36 that can be ascended (i.e., “translated”) upward [see the arrow on the spindle in the Figures] by means of the motor drive 38. The specification on page 5, lines 5-6 states: “The soot is deposited on the lower end of bait 34 to form a columnar porous preform.”

One skilled in the art, after reading the foregoing sections of the specification and viewing the Figures would clearly understand that using the process steps as described one:

- can continuously grow the preform 40, and
- that the preform is a porous solid as stated by applicants,
- that the preform is in the form of a column (columnar), and
- that the columnar solid porous preform is formed as a result of the upward translation of the bait during the deposition of the soot.

One skilled in the art would also understand that the solid columnar preform is **also porous** because the chlorine treatment step described on page 5, lines 14-16 requires that the preform be porous in order for the chlorine to penetrate the preform to form and remove volatile metal chlorides and also to remove OH from the glass structure.

Regarding the temperature at which the deposition is carried out, Claim 1 states the particles are deposited on a deposition surface (e.g., the “bait”) at a temperature below a minimum temperature at which the particles can consolidate either partially or fully into dense glass while successively translating the deposition surface away from the burner.

The Detailed Discussion (page 5, lines 16-19) indicates that consolidation temperatures are typically in the range of 1200-1900 °C, with a preferred range being 1300-1700 °C. The specification indicates on page 3, lines 8-10, states that *consolidating the glass in a separate step eliminates the need to capture the soot at consolidation temperatures and permits the soot to be captured at a lower temperature*, typically 200-500 °C lower, than possible with the conventional boule process [a process in which the soot is captured at consolidation temperatures; *see page 5, lines 16-19 for preform consolidation temperatures*]. Using the foregoing information, one skilled in the art would understand that applying the “200-500 °C lower temperatures” to the 1200-1900 °C range results in a “minimum temperature of 1000 °C and applying the 200-500 °C lower temperatures to the preferred 1300-1700 °C range results in a minimum temperature of 1100 °C. Further, one skilled in the art reading the “chlorine treatment” temperature range of 900 - 1100 °C would further understand that the “minimum temperature” can correspond to this range because chlorine purification requires that the gas penetrate the preform and that this is done prior to consolidation.

Consequently, Appellants submit that the specification is fully supports the terms the Examiner complained of in his 1<sup>st</sup> Statement and that the specification fully supports these terms as used in claim 1 and claims 2, 4-9, 13, 15, 20, 21, and 24.



**Examiner's 2<sup>nd</sup> statement**

The Examiner states the at least the "temperature limitation" and "while successively translating" cannot be implicitly supported - because they are impossible.

**First**, regarding the temperature limitation, In their comments above concerning the Examiner's 1<sup>st</sup> Statement, Appellants, *citing page and line*, have shown that the temperature limitation (that is, the "minimum temperature") is fully supported by the specification and have also shown how one skilled in the art would understand and be able to practice the invention. Those comments, given above, are:

"The background art (page 2, line 1) and the Detailed Discussion (page 5, lines 16-19) both indicate that consolidation temperatures are typically in the range of 1200-1900 °C, with a preferred range being 1300-1700 °C. The specification indicates on page 3, lines 8-10, states that *consolidating the glass in a separate step eliminates the need to capture the soot at consolidation temperatures and permits the soot to be captured at a lower temperature*, typically 200-500 °C lower, than possible with the conventional boule process [a process in which the soot is captured at consolidation temperatures; *see page 5, lines 16-19 for preform consolidation temperatures*]. Using the foregoing information, one skilled in the art would understand that applying the "200-500 °C lower temperatures" to the 1200-1900 °C range results in a "minimum temperature of 1000 °C and applying the 200-500 °C lower temperatures to the preferred

1300-1700 °C range results in a minimum temperature of 1100 °C. Further, one skilled in the art reading the “chlorine treatment” temperature range of 900 - 1100 °C would further understand that the “minimum temperature” can correspond to this range because chlorine purification requires that the gas penetrate the preform and that this is done prior to consolidation.”

**Second**, regarding the phrase “while successively translating,” this rejection is incorrect because the phrase was taken out of context by the Examiner. The only translation described is the specification is the upward translation of the bait and the “growing columnar solid porous preform” as it is grown on the bait {page 4, lines 15-24, and particularly lines 23-24}.

The relevant part of claim 1 reads as follows:

“... growing a column of solid porous preform by successively depositing the particles on a deposition surface at a temperature below a minimum temperature at which the particles can consolidate into dense glass

while successively translating the deposition surface away from the burner ... “

Properly read the above clauses indicate that two events are occurring. The first event is that the soot particles are being deposited on the deposition surface (the “bait”) to make the preform. The second event is that as the preform is being made the bait is

being moved away from the burner. It is a result of these two events is that one forms the columnar solid porous preform. The specification at page 4, lines 25-26 clearly indicates that the "Burner placement is fixed and the bait speed is adjusted to maintain constant burner-to-preform distance during deposition" [of the soot]. The specification on page 4, lines 23-24 also indicate that the "speed at which the bait ascends is critical to the temperature profile and shape of the porous preform 40 formed on the bait 34."

Appellants submit that the foregoing sections of the specification, viewed also in the light of the Figures, clearly indicate that the solid porous columnar preform is formed in a continuous manner while the bait [on which the preform is being made] is being slowly translated upward.

**Third**, the Examiner has also made comments concerning "two successive translations". There is only a single translation described in the process. The Examiner's comments can only be due a mistake due to an improper reading of the claim.

Appellants submit that the Examiner is mistaken in his assumption in view of what the specification actually recites.

**Fourth**, the Examiner has baldly stated that "... the particles could not [emphasis added] stick together if the temperature is as low as claimed." The Examiner mentions Blackwell (U.S. Patent No 5,152,819) as not meeting Appellants' temperature limitation for the same reason. However, the fact that Blackwell does not mention what applicants teach and have done is not a reason for rejection; rather it is an inventive step in an inventive method of making a solid porous columnar preform. In this instance the Examiner is portraying himself as 'one skilled in the art'. There is no support for the

Examiner's statement in Blackwell or any other art the Examiner has cited during prosecution. The fact is that using the method of the invention and the apparatus as illustrated in Figures 1 and 2, the particles to 'stick together' to form a columnar solid porous preform as described.

In contrast to Blackwell et al., Appellants state in claim 1, lines 5-7, that the particles (soot) formed are deposited on "... a deposition surface at a temperature below a minimum temperature at which the particles can consolidate either partially or fully into dense glass ...". Thus, Appellants specifically teach that the preform is formed at a temperature below that at which consolidation of the deposited particles [soot] into a glass can occur. Appellants are not required to supply a theory or hypothesis as to why in their method the soot "sticks together" and forms a solid porous preform.

Therefore, Appellants submit that the Examiner is mistaken in his assumption in view of what the specification actually recites and that this ejection should properly be reversed.

### **Examiner's 3<sup>rd</sup> Statement**

In his 3<sup>rd</sup> Statement the Examiner says that "Either something is solid or it is porous, it cannot be "solid porous - or it could possibly be there have to be support for such in the specification"

Reading the specification in consideration of the figures, Appellants submit that there is full support for their method forming a "solid porous preform." The specification at page 5, lines 5-6 states that "the soot is deposited on the lower end of

bait 34 to form a columnar porous preform. One skilled in the art, reading the specification in view of the Figures, would clearly understand that the invention describes the formation of a “solid porous article”, in this case the silica-titania soot perform.

The phrase “solid porous” is not contradictory. There are articles which can be described as “solid porous” which are known not only to those within technical fields, but also to the general public. For example, sponges, molecular sieves, diesel filter traps, and activated carbon used to remove hazardous gases and also trap fuel fumes in vehicles and/or at refuelling stations. Appellants submit that the Examiner is in error regarding his statement that something cannot be both porous and solid. His statement contrary to experience.

**Examiner's 4<sup>th</sup> Statement**

The Examiner has stated: “There is no support for claims 20-21. Applicants does not dispute this, thus it is deemed that applicant acquiesces on this point.”

The Examiner is correct, *but only in so far as the rejection of claims 20-21 was not in Appellants' Response dated October 25, 2006* in response to the Office Action of June 6, 2006. By mistake this rejection was not answered in the October 25, 2006 Response.

**However**, when the 4<sup>th</sup> Statement was made in the Office Action of March 12, 2007, Appellants did reply in their Response of May 23, 2007 on page 8. Appellants there stated:

“The Examiner also states that applicant has acquiesced that there is no support for claims 20 and 21. Applicants traverses. Claims 20 and 21 are as follows.

“20. (previously presented) The method of claim 1, wherein the minimum temperature is approximately 1200°C.

“21. (previously presented) The method of claim 20, wherein the temperature at which the particles are deposited is approximately 200 to 500°C less than the minimum temperature.

“Regarding claim 20, applicants refer the Examiner to the Specification on page 5, lines 16-18, in which applicants indicate that consolidation temperatures are “typically in the range of 1200 to 1900 °C.” The lower temperature is 1200 °C. Those skilled in the art would understand that 1200 °C would be the minimum consolidation temperature. Applicants also refer the Examiner to page 3, lines 5-7 which indicate (1) that performing consolidation in a separate step allow eliminates the need to capture soot at consolidation temperatures and (2) that this allows the soot to be deposited at lower temperatures, typically 200 to 500 °C lower than in conventional boule processes. Applicants submit that the specification supports both claims 20 and 21 and that one skilled in the art would understand this and would understand exactly what these claims mean.”

While the Examiner did not enter the ‘Amendment’ because he deemed that it raised new issues and introduced new matter [into the claims], Appellants did respond to the rejection.

However, since this rejection is currently pending, Appellants submit that the above response properly replies to the rejection of amendments to the claims and Specification. It should be noted that the language inserted into the specification at page 3, line 11, was the following sentence taken from the **original claim 14**.

The inserted sentence was:

“That is, the silica and titania particles are deposited at a temperature below that required to consolidate the porous preform into dense glass.”

Original claim 14 stated:

“The method of claim 10, wherein the silica and titania particles are deposited at a temperature below that required to consolidate the porous preform into dense glass.”

Since this language was originally present in the application, Appellants believe that there is no “new matter” issue and that insertion into the cited paragraph is permissible since the language appear in the specification and claims as-filed.

**B. 35 U.S.C. §112, second paragraph rejections - Appellants' Response**

In *Verve LLC v. Crane Cams Inc.*, 65 USPQ2d 1051 (Fed. Cir. 2002), the Court of Appeals for the Federal Circuit reversed a district court finding that the expression “substantially constant wall thickness” in the claims is not supported by the specification and prosecution history by a substantially clear definition of “substantially”. Id at 1053. This is similar to what the Examiner in the present case has indicated to Appellants with regard to “solid porous preform”, “columnar solid porous preform”, “while successively” and other phrases Appellants has used.

In its decision the court overturned the district court, stating:

“We conclude that the court erred in law, in requiring that intrinsic evidence of the specification and prosecution history is the sole source of meaning of words that are used on a technologic context. While reference to intrinsic evidence is primary in interpreting claims, the criterion is the meaning of words as they would be understood by persons in the field of the invention. Patent documents are written for persons familiar with the relevant field; the patentee is not required to include in the specification information readily understood by practitioners, lest every patent be required to be written as a comprehensive tutorial and treatise for the generalist, instead of a concise statement for persons in the field.” Id at 1053-1054.

In the present case, Appellants' specification, read together with the figures, would clearly be understood by one skilled in the art of the field of the invention. For example, such skilled persons would be familiar with the formation of preforms and know that soot from burners, can form a solid porous structure. Such skilled person reading Appellants' specification together with the figures would know how to practice the claimed method of making titania-doped silica glass.



**Examiner's 5<sup>th</sup> Statement**

In his fifth statement the Examiner stated that "Applicants has not disputed this rejection, thus it deemed that applicant acquiesces that the claims fail to particularly point out and distinctly claim the subject matter."

The Examiner is correct only in so far specific mention was not made to the §112, second paragraph rejections in the Office Action Response of October 25, 2006, However, in their Response of May 23, 2007, in which Appellants sought to amend claims and the specification, Appellants sought to correct the alleged defect.

Appellants believe that had the amendments of their response of May 23, 2007 been entered, any defects that may have been present would have been corrected. In their May 23, 2007 response on page on page 9, Appellants specifically stated:

"... the rejections given under 35 U.S.C. §112, second paragraph, are moot in view of the amendments to the specification, for clarity, and the arguments given above which are incorporated herein in their entirety." [Emphasis added].

The specific rejection under §112, second paragraph, are the same as those given under §112, first paragraph and Appellants believed that the same arguments they made in regard to the §112, first paragraph, rejections. Thus, Appellants did present a "good faith" argument, which of course was not entered. The specific §112, second paragraph, rejections were directed to claims 1, 5 and 21 and are dealt with in Appellant's response below regarding the **Examiner's 6<sup>th</sup>, 7<sup>th</sup> and 8<sup>th</sup> Statements.**

**Examiner's 6<sup>th</sup> Statement**

The Examiner's 6<sup>th</sup> Statement states:

“Claim 1: it is not understood that is meant by “column of solid porous preform” - is unclear if it means “column of solid glass or a porous preform”, or “a porous column of solid preforms” or something else. As alluded to above, the term “solid porous” is indefinite as to its meaning. And, it is unclear what is meant by “while successively” - since these two words connote mutually exclusive conditions (see above).”

This rejection is the same as that made in the Examiner's 1<sup>st</sup> and 2<sup>nd</sup> Statement as indicated above, though in combined form in this instance.

Claim 1 states that the a column of a solid porous preform is grown by successively depositing the particles on a deposition surface at a temperature below a minimum temperature at which the particles can consolidate either partially or fully into dense glass while successively translating the deposition surface away from the burner.

**First**, Appellants now refer to the specification on page 4, lines 15-24, and Figures 1 and 2 which describe and illustrate the formation of the solid porous preform 40 by the deposition of the soot from burners 28 on the deposition surface (“bait”) 34 which is attached by a pin 35 to a spindle 36 that can be ascended (i.e., “translated”) upward [see the arrow on the spindle in the Figures] by means of the motor drive 38. The specification on page 5, lines 5-6 states: “The soot is deposited on the lower end of bait 34 to form a columnar porous preform.”

One skilled in the art, after reading the foregoing sections of the specification and viewing the Figures would clearly understand that using the process steps as described one:

- can continuously grow the preform 40, and
- that the preform is a porous solid as stated by applicants,
- that the preform is in the form of a column (columnar), and
- that the columnar solid porous preform is formed as a result of the upward translation of the bait during the deposition of the soot.

One skilled in the art would also understand that the solid columnar preform is **also porous** because the chlorine treatment step described on page 5, lines 14-16 requires that the preform be porous in order for the chlorine to penetrate the preform to form

**Second**, regarding the phrase “while successively” (or “while successively translating”) this rejection is incorrect because it taken out of context. The only translation described is the specification is the upward translation of the bait and the “growing columnar solid porous preform” as it is grown on the bait {page 4, lines 15-24, and particularly lines 23-24}.

The relevant part of claim 1 reads as follows:

“... growing a column of solid porous preform by successively depositing the particles on a deposition surface at a temperature below a minimum temperature at which the particles can consolidate into dense glass

while successively translating the deposition surface away from the burner . . . “

Properly read the above clause indicates that two events are occurring. The first event is that the soot particles are being deposited on the deposition surface (the “bait”) to make the preform. The second event is that as the preform is being made the bait is being moved away from the burner. As the preform forms on the bait and the bait ascends away from the burners [page 4, lines 23-24 and Figures 1 and 2] the deposition surface becomes the that part of the preform that has been deposited on the bait. *It is a result of these two events is that one forms the columnar solid porous preform.* The specification at page 4, lines 25-26 clearly indicates that the “Burner placement is fixed and the bait speed is adjusted to maintain constant burner-to-preform distance during deposition” [of the soot]. The specification on page 4, lines 23-24 also indicate that the “speed at which the bait ascends is critical to the temperature profile and shape of the porous preform 40 formed on the bait 34.”

Appellants submit that the foregoing sections of the specification, viewed also in the light of the Figures, clearly indicate that the solid porous columnar preform is formed in a continuous manner while the bait [on which the preform is being made] is being slowly translated upward.

**Examiner’s 7<sup>th</sup> Statement**

The Examiner’s 7<sup>th</sup> Statement states:

“Claim 5: it is unclear if the ‘consolidation’ refers to the consolidating step of claim 1, or if it is open to any consolidation.”

Claim 5 states:

5. The method of claim 1, further comprising dehydrating the porous preform by exposing the porous preform to a heated, halide-containing atmosphere prior to consolidation.

Claim 5 depends only on claim 1. Claim 1 claims only one consolidation step and the specification indicates that there is only one consolidation step. Consolidation temperatures are given in the specification, for example, in the Detailed Discussion on page 5, lines 16-19, which indicates that consolidation temperatures are typically in the range of 1200-1900 °C, with a preferred range being 1300-1700 °C. Consequently, the specification is clear as to the meaning “consolidation” and that the temperature range for consolidation is 1200-1900 °C, with a preferred range being 1300-1700 °C.

#### **8<sup>th</sup> Statement**

The Examiner’s 8<sup>th</sup> Statement states:

“Claim 21: There is noted that there is no antecedent basis for “the temperature at which the particles are deposited” = it is unclear if the claim is directed to the actual deposition temperature, or if it is directed to the temperature of the deposition surface.”

Claim 21 depends on claim 20 and states that the temperature at which the particles are deposited is approximately 200 to 500 °C less than the minimum temperature [required for consolidation].

Claim 20 depends on claim 1 and states that the minimum temperature is 1200 °C.

Claim 1 states that the particles are deposited on a deposition surface below the minimum temperature required to consolidate the particles into a dense glass. One skilled in the art would understand that the phrase “minimum temperature required to consolidate the particles into a dense glass” to mean that below this temperature the particles would not consolidate into a dense glass.

In order to properly understand claim 21, it is necessary to discuss the claims in reverse order. That is, in the order of claim 1, then claim 20 and finally claim 21.

**First**, reading claim 1 in the light of the specification and the drawings, it is clear, to one skilled in the art, that the deposition surface (“bait”) is initially located a distance from the burners and that the required distance is one such that the particles being deposited are deposited at a temperature below the consolidation temperature of the preform that is to be formed (page 3, lines 8-10) and ultimately consolidated by heating at a temperature in the range of 1200 to 1900 °C [page 5, lines 16-19]. Since the specification states that consolidation temperatures are in the range of 1200-1900 °C (and preferably within the range of 1300 to 1700 °C), it is clear from the specification that the particles are deposited on the bait at a temperature at below 1200 °C. Knowing the minimum deposition temperature, one skilled in the art would then know that **initially** the deposition surface (“bait”) temperature would be below the consolidation temperature (or else the particles would consolidate). One skilled in the art would also know and understand (after reading the specification at page 4, lines 15-24, and reviewing Figures 1 and 2) that as the soot is deposited the bait is moved or translated away from the burners. This is done in part to maintain the deposition temperature at below the consolidation temperature in the area where the “newly

formed soot” is being deposited as well as to give the preform shape (columnar in this case). One skilled in the art would be able to determine the appropriate distance between the burners so that the temperature of the bait (or that of the preform at the soot deposition site) is below the minimum consolidations temperature. Common instruments such optical pyrometers could be used to make the temperature measurement.

**Second**, regarding claim 20, Appellants also refer to the Specification on page 5, lines 16-18, which indicates that consolidation temperatures are “typically in the range of 1200 to 1900 °C.” A preferred consolidation temperature range is 1300 to 1700 °C. Using this information, those skilled in the art would understand that 1200 °C would be the minimum consolidation temperature and that as a result the soot particles would be collected to make the preform at a temperature of less than 1200 °C.

**Third**, claim 21 states that the temperature at which the particles are deposited is approximately 200 to 500 °C less than the minimum temperature. Applying this range to the 1200 °C temperature of the 1200 to 1900 °C range, one gets a deposition temperature range of 700 to 1000 °C, which is below the minimum concolidation temperature of 1200 °C. If applied to the 1300 °C temperature of the 1300 to 1700 °C, one gets a deposition temperature range of 800 to 1100 °C, which is alsobelow the minimum concolidation temperature of 1200 °C. Thus, in either case the temperature for deposition is below the minimum temperature required for consolidation.

Appeal Brief  
October 31, 2007  
Application No. 09/844,947

**CONCLUSION**

In conclusion, Appellants request a reversal of each of the grounds of rejection maintained by the Examiner. Appellants have shown above by citation of page(s) and line(s) of the specification and reference to the Figures that each item complained of by the Examiner is present in the application as-filed.

Please charge the necessary fees of \$500 for filing the Brief on Appeal to our Deposit Account No. 03-3325. If there are any other fees due in connection with the filing of this Brief on Appeal, for example, an extension of time to make this brief timely, please charge the fee(s) to our Deposit Account No. 03-3325.

Respectfully submitted,

Dated: October 31, 2007

By: Walter M. Douglas

Walter M. Douglas  
Registration No. 34,510  
607-974-2431  
Corning Incorporated  
Patent Department  
SP-TI-03-01  
Corning, NY 14831

**CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8:**

I hereby certify that this correspondence is being deposited with the United States Postal Service as Express Mail, No. EM087163937US, in an envelope addressed to Mail Stop Appeal Brief – Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on

10/31/07.

Date of Deposit

Julie Henshaw

Julie Henshaw



**APPENDICES TO BRIEF ON APPEAL**

**VIII. CLAIMS APPENDIX**

The claims on appeal are as follows.

1. **(rejected)** A method for producing a fused silica glass containing titania, comprising:

synthesizing particles of silica and titania by delivering a mixture of silica precursor and a titania precursor to a burner;

growing a column of solid porous preform by successively depositing the particles on a deposition surface at a temperature below a minimum temperature at which the particles can consolidate into dense glass while successively translating the deposition surface away from the burner; and

subsequently consolidating the porous preform into dense glass.

2. **(rejected)** The method of claim 1, wherein a translation speed of the deposition surface is adjusted to maintain a substantially constant distance between an end portion of the porous preform remote from the deposition surface and the burner during deposition.

4. **(rejected)** The method of claim 1, wherein consolidating the porous preform into dense glass comprises heating the porous preform to a temperature in a range from 1200 to 1900°C.

5. **(rejected)** The method of claim 1, further comprising dehydrating the porous preform by exposing the porous preform to a heated, halide-containing atmosphere prior to consolidation.
6. **(rejected)** The method of claim 5, where in the heated, halide-containing atmosphere comprises chlorine.
7. **(rejected)** The method of claim 5, where in the heated, halide-containing atmosphere comprises fluorine.
8. **(rejected)** The method of claim 5, wherein the temperature of the heated, halide-containing atmosphere is in a range from 900 to 1100°C.
9. **(rejected)** The method of claim 1, wherein the glass contains 2 to 12% by weight titania.
13. **(rejected)** The method of claim 5, wherein a translation speed of the deposition surface is adjusted to maintain a substantially constant distance between an end portion of the porous preform remote from the deposition surface and the burner during deposition.

15. **(rejected)** The method of claim 5, wherein consolidating the porous preform into dense glass comprises heating the porous preform to a temperature in a range from 1200 to 1900°C.

20. **(rejected)** The method of claim 1, wherein the minimum temperature is approximately 1200°C.

21. **(rejected)** The method of claim 20, wherein the temperature at which the particles are deposited is approximately 200 to 500°C less than the minimum temperature.

23. **(withdrawn from appeal and cancelled)** ~~The method of claim 1, wherein a variation on coefficient of thermal expansion of the dense glass is in a range from -5 ppb/°C to +5 ppb/°C.~~

24. **(rejected)** The method of claim 1, further comprising rotating the deposition surface relative to the burner while successively depositing the particles on the deposition surface.

**IX. EVIDENCE APPENDIX**

**A. Evidence**

The following are submitted as part of the Evidence Appendix.

1. Final Office Action mailed March 12, 2007, pages 36-43 of this document.
2. Applicants' Response of May 23, 2007, pages 44-52 of this document.
3. Applicants' Response of December 21, 2006, pages 53-60 of this document.

**B. Location of Evidence**

The patent Evidence above in in the Patent Office File Wrapper. It constitutes an office Action sent by the Examine to applicants during prosecution and applicants' Responses to office Actions.

**C. Case law**

1. Moba B.V. v. Diamond Automation Inc., 66 USPQ2d 1429 (Fed. Cir. 2003), pages 61-69.
2. Veerve LLV v. Crane Cam Inc., 65 USPQ2d 1051 (Fed. Cir. 2002), pages 70 - 72

Appeal Brief  
October 31, 2007  
Application No. 09/844,947

**1. Final Office Action mailed March 12, 2007, pages 36-43 below.**



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1418  
Alexandria, Virginia 22313-1418  
www.uspto.gov

|  |                           |  |                                 |                               |
|--|---------------------------|--|---------------------------------|-------------------------------|
| APPLICATION NO.<br>✓ 09/844,947  | FILING DATE<br>04/27/2001 | FIRST NAMED INVENTOR<br>Bradford G. Ackerman | ATTORNEY DOCKET NO.<br>SP01-095 | CONFIRMATION NO.<br>1336      |
| JMO<br>73928 7398 03/12/2007<br>CORNING INCORPORATED<br>SP-TI-3-1<br>CORNING, NY 14831 |                           | RECEIVED<br>MAR 12 2007<br>IP USPTO          |                                 | EXAMINER<br>HOFFMANN, ROSE M. |
|  |                           | ART UNIT<br>1731                             | PAPER NUMBER                    |                               |
| SHORTENED STATUTORY PERIOD OF RESPONSE<br>30 DAYS                                      |                           | MAIL DATE<br>03/12/2007                      | DELIVERY MODE<br>PAPER          |                               |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

MAR 12 2007 dm  
Final Rejection 5/12/07  
Notice of Appeal 6/12/07  
6 Month Final Date 9/12/07

Appeal Brief  
October 31, 2007  
Application No. 09/844,947

|                              |                               |                                 |  |
|------------------------------|-------------------------------|---------------------------------|--|
| <b>Office Action Summary</b> | Application No.<br>09/844,947 | Applicant(s)<br>ACKERMAN ET AL. |  |
|                              | Examiner<br>John Hoffmann     | Art Unit<br>1731                |  |

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO verified for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. 35 U.S.C. § 133.
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(d).

**Status**

1) ☒ Responsive to communication(s) filed on 21 December 2006.

2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) ☒ Claim(s) 1, 2, 4-9, 13, 15, 20, 21, 23 and 24 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.

6) ☒ Claim(s) 1-2, 4-9, 13, 15, 20-21, 23-24 is/are rejected.

7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.

8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some \* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-857)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-940)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SI/05)

Paper No(s)/Mail Date \_\_\_\_\_

4) ☐ Interview Summary (PTO-413)

Paper No(s)/Mail Date \_\_\_\_\_

5) ☐ Notice of Informal Patent Application (PTO-152)

Paper No(s)/Mail Date \_\_\_\_\_

6) ☐ Other: \_\_\_\_\_

Application/Control Number: 09/844,947  
Art Unit: 1731

Page 2

/ DETAILED ACTION

*Claim Rejections - 35 USC § 112*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

5 The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-2, 4-9, 13, 15, 20-21, 23-24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s)

10 contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

13 Examiner could find no support for the claimed "column of solid porous preform", or "solid porous", "while successively translating", "a deposition surface at a temperature  
15 below a minimum temperature at which the particles can consolidate" – either explicit or implicit. This is deemed to be a prima facie showing on failure to comply with the requirement. The burden is now on Applicant to show the requirement is complied with, or to amend the claims so that they comply.

Moreover, it is clear that at least the temperature limitation and "while  
20 successively translating" cannot be implicitly supported – because they are impossible. The terms "while" and "successively" are two mutually exclusive conditions: "while" means simultaneously, and "successively" means following each other. Nor can a translating be successive with itself – at best it would have to be successive with some

Application/Control Number: 09/844,947  
Art Unit: 1731

Page 3

other translating. But there is NO support for two successive translations (that Examiner can find) – Applicant cannot now claim two successive translations when the specification does not provide support therefor. As to the temperature limitation, the particles could not stick to the support or to each other if the temperature is as low as claimed. In other words, Applicant is correct in arguing that Blackwell does not meet the temperature limitation – but for the same reason, Applicant's invention does not provide support therefor.

Either something is solid or it is porous, it cannot be "solid porous" – or if it could possibly be, there would have to be support for such in the specification. The only mention of "solid" in the specification that Examiner could find is in reference to dense, non-porous glass.

There is no support for claims 20-21. Applicant does not dispute this, thus it deemed that applicant acquiesces on this point.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

15 The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-2, 4-9, 13, 15, ~~20-21~~, 23-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant has not disputed this rejection, thus it deemed that applicant  
20 acquiesces that the claims fail to particularly point out and distinctly claim the subject matter.



Application/Control Number: 09/844,947  
Art Unit: 1731

Page 4

6 Claim 1: It is not understood what is meant by "column of solid porous preform" – is unclear if it means "column of solid glass or a porous preform", or "a porous column of solid preforms" or something else. As alluded to above, the term "solid porous" is indefinite as to its meaning. And, it is unclear what is meant by "while successively" –  
5 since these two words connote mutually exclusive conditions (see above).

Claim 5: It is unclear if the "consolidation" refers to the consolidating step of claim 1, or if it is open to any consolidation.

Claim 21: There is noted that there is no antecedent basis for "the temperature at which the particles are deposited" – thus it is unclear if the claim is directed to the actual  
10 deposition temperature, or if it is directed to the temperature of the deposition surface.

#### ***Response to Arguments***

Applicant's arguments filed 21 December 2006 have been fully considered but they are not persuasive.

Regarding the 112 –first paragraph rejection of "column of solid porous preform", applicant points to specific lines in pages 2-5 of the specification. Whereas these lines do support a limitation of making a "porous column", a "columnar porous preform" or a "porous preform" and then converting it into a "solid preform" or a "solid column", such does not support the newly created limitation of "column of solid porous preform" – as far as examiner can tell. Nor does applicant point out how these lines support this new limitation.

Application/Control Number: 09/844,947  
Art Unit: 1731

Page 5

Applicant goes on to point out that since particles are made of solids, the result is a solid preform. This is an assertion that is prima facie unreasonable. Examiner can find no definition for "solid" that means composed of solids. By applicant's reasoning, one can consider a slurry as being a solid, because it too is comprised of solid particles. Since applicant has not defined or otherwise set forth in the as-filed application that "solid" is to mean anything else but is customary usage, the claim is interpreted using the customary definition.

As pointed out previously, the present specification only uses the term "solid" in reference to dense, non-porous glass. Since applicant does not dispute this finding by the Office.

Regarding the "while successively translating" rejection, applicant refers to page 2, page 4 and the abstract. Applicant points out that particles are deposited while the surface is rotated and translated. The relevance of this is not understood. The claim does not recite merely "while translating", rather the claim requires "while successively translating". Since applicant has failed to point out the basis for the "successively" portion of the claim, applicant has failed to show that 35 USC 112 –first paragraph is complied with.

Regarding the limitation of a "temperature below a minimum temperature at which the particles can consolidate", applicant points to page 3, lines 8-10 and pages 1-2. A review of the cited passages indicates that invention does not require capturing the soot "at consolidation temperatures". This is deemed to be insufficient because this passage only refers to the temperature of the soot – it gives no indication of the

Application/Control Number: 09/844,947  
Art Unit: 1731

Page 6

temperature of the deposition surface. The limitation which is rejected refers to the temperature of the deposition surface, not the soot particles. Whereas in other situations this might appear to be splitting hairs -- such is not case when one reviews the entire prosecution history. Most notably, at pages 5-6 of the Appeal Brief of 4/12/2006 applicant argues that the substantially identical process of Blackwell has temperatures at which (partial) consolidation takes place. Thus it is deemed that if Blackwell has consolidation, so do's applicant. The plain meaning of "consolidate" is "to join together into one whole"; Since applicant clearly consolidates the particles, there must be something at a temperature which is not below the minimum temperature which permits consolidation.

#### *Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Application/Control Number: 09/844,947  
Art Unit: 1731

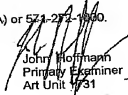
Page 7

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is (571) 272-1191. The examiner can normally be reached on Monday through Friday, 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-273-1000.

  
John Hoffmann  
Primary Examiner  
Art Unit 1731

3-7-07

jmh

Appeal Brief  
October 31, 2007  
Application No. 09/844,947

## 2. Applicants' Response of May 23, 2007, pages 44-52.

Appl. No.: 09/844,947  
Amdt. Dated: 23 May 2007  
Reply to Office Action of: March 12, 2007

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : 09/844,947  
Applicant : Bradford G. Ackerman  
Filed : April 27, 2001  
Title : METHOD FOR PRODUCING TITANIA-DOPED FUSED SILICA  
GLASS  
TC/A.U. : 1731  
Examiner : John M. Hoffmann  
Docket No. : SP01-095

Mail Stop: Amendments  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

### AMENDMENT

Sir:

In response to the Office action of March 12, 2007, please amend the above-identified as follows:

**Amendments to the Specification** begin on page 2.

**Amendments to the Claims** are reflected in the listing of claims which begins on page 3 of this paper.

**Remarks/Arguments** begin on page 6 of this paper.

Appl. No.: 09/844,947  
Amdt. Dated: 23 May 2007  
Reply to Office Action of: March 12, 2007

#### Amendments to the Specification

Please amend the Specification on page 3, lines 2-13 as follows (insertions underlines, deletions struck through):

Embodiments of the invention provide a method for producing  $\text{SiO}_2\text{-TiO}_2$  glass substrates with low variations in CTE within the substrate. The method involves transporting silica and titania precursors in vapor form to deposition burners. The precursors exit the deposition burners where they react to form fine  $\text{SiO}_2\text{-TiO}_2$  particles ("soot"). The soot collects on a deposition surface to form a porous preform. The method further includes consolidating the porous preform to give a dense  $\text{SiO}_2\text{-TiO}_2$  glass in a separate step. Consolidating the glass in a separate step eliminates the need to capture the soot at consolidation temperatures. This allows the soot to be deposited at lower temperatures (typically,  $200^\circ\text{C}$  to  $500^\circ\text{C}$  lower) than possible with the conventional boule process. That is, the silica and titania particles are deposited at a temperature below that required to consolidate the porous preform into dense glass.  $\text{SiO}_2\text{-TiO}_2$  glass having low OH content can be produced by exposing the preform to a dehydrating agent, such as chlorine or fluorine, prior to consolidation. Chlorine and/or fluorine treatment would also remove impurities from the glass which could result in seeds.

Appeal Brief  
October 31, 2007  
Application No. 09/844,947

Appl. No.: 09/844,947  
Amdt. Dated: 23 May 2007  
Reply to Office Action of: March 12, 2007

The listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (amended) A method for producing a fused silica glass containing titania, comprising:
  - synthesizing particles of silica and titania by delivering a mixture of silica precursor and a titania precursor to a burner;
  - growing a ~~column-of-solid~~ columnar porous preform by successively depositing the particles of silica and titania on a deposition surface at a temperature below a minimum-temperature at which the particles can consolidate that temperature required to consolidate the porous preform into dense glass while ~~successively~~ translating the deposition surface away from the burner; and
  - subsequently consolidating the porous preform into dense glass.
2. (previously presented) The method of claim 1, wherein a translation speed of the deposition surface is adjusted to maintain a substantially constant distance between an end portion of the porous preform remote from the deposition surface and the burner during deposition.
3. (cancelled)
4. (previously presented) The method of claim 1, wherein consolidating the porous preform into dense glass comprises heating the porous preform to a temperature in a range from 1200 to 1900°C.
5. (original) The method of claim 1, further comprising dehydrating the porous preform by exposing the porous preform to a heated, halide-containing atmosphere prior to consolidation.

Appeal Brief  
October 31, 2007  
Application No. 09/844,947

Appl. No.: 09/844,947  
Amdt. Dated: 23 May 2007  
Reply to Office Action of: March 12, 2007

6. (original) The method of claim 5, where in the heated, halide-containing atmosphere comprises chlorine.
7. (original) The method of claim 5, where in the heated, halide-containing atmosphere comprises fluorine.
8. (original) The method of claim 5, wherein the temperature of the heated, halide-containing atmosphere is in a range from 900 to 1100°C.
9. (original) The method of claim 1, wherein the glass contains 2 to 12% by weight titania.
10. – 12 (previously cancelled)
13. (previously presented) The method of claim 5, wherein a translation speed of the deposition surface is adjusted to maintain a substantially constant distance between an end portion of the porous preform remote from the deposition surface and the burner during deposition.
14. (previously cancelled)
15. (previously presented) The method of claim 5, wherein consolidating the porous preform into dense glass comprises heating the porous preform to a temperature in a range from 1200 to 1900°C.
16. – 19. (previously cancelled)
20. (previously presented) The method of claim 1, wherein the minimum temperature is approximately 1200°C.



Appeal Brief  
October 31, 2007  
Application No. 09/844,947

Appl. No.: 09/844,947  
Amdt. Dated: 23 May 2007  
Reply to Office Action of: March 12, 2007

21. (previously presented) The method of claim 20, wherein the temperature at which the particles are deposited is approximately 200 to 500°C less than the minimum temperature.

22. (cancelled)

23. (previously presented) The method of claim 1, wherein a variation on coefficient of thermal expansion of the dense glass is in a range from -5 ppb/°C to +5 ppb/°C.

24. (previously presented) The method of claim 1, further comprising rotating the deposition surface relative to the burner while successively depositing the particles on the deposition surface.

Appl. No.: 09/844,947  
Amdt. Dated: 23 May 2007  
Reply to Office Action of: March 12, 2007

#### REMARKS/ARGUMENTS

##### 1. Oath/Declaration

Acknowledgement has not been made as to the acceptance of the Declaration filed December 21, 2006.

##### 2. Drawings

Applicants thank the Examiner for indicating in the form PTO-948 dated May 13, 2004 that the formal drawings previously submitted have been approved.

##### 3. Specification

The specification has been amended by incorporation of the language of original claim 13 into the paragraph on page 3, lines 2-13. Since this language appeared in the claims of the specification as-filed, applicants submit that this amendment does not introduce new subject matter into the specification.

##### 3. Claims

Claims 1, 2, 4, 9, 13, 15, 20, 21, 23 and 24 remain in the application. The independent claim is claim 1. Claims 2, 4, 9, 13, 15, 20, 21, 23 and 24 depend on claim 1 either directly or indirectly by means of an intervening dependent claim.

Claim 1, line 7, has been amended herein to read "a ~~column of solid columnar~~ porous preform" as described in the Specification on page 5, lines 5-6; and has been further amended by deletion of the word "successively" from the phrase "successively translating". Claim 1 has further been amended as follows (insertions underlined, deletions struck through)

"... depositing the particles of silica and titania on a deposition surface at a temperature below ~~a minimum temperature at which the particles can consolidate~~ that temperature required to consolidate the porous preform into dense glass ..."

Appl. No.: 09/844,947  
Amdt. Dated: 23 May 2007  
Reply to Office Action of: March 12, 2007

Applicants believe that the foregoing amendments overcome the Examiner's rejection described below regarding the use of the word "while" and "successively" following one another. Further, there is

### 3. § 112 Rejections

The Examiner has rejected claims 1, 2, 4 - 9, 13, 15, 20, 21, 23, and 24 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirements for reasons set forth in the Office Action.

Regarding the Examiner's rejection of the phrases "a column of solid porous perform" and "successively translating," applicants submit that these rejections are moot in view of the amendments submitted herein (insertions underlined, deletions struck through) so that these phrases read "~~a column of solid~~ columnar porous perform" and "~~successively~~ translating," respectively. [See further comments in the second paragraph below.]

Regarding the Examiner's rejection of the phrase "a deposition surface at a temperature below a minimum temperature at which the particles can consolidate," this amendment is believed moot in view of the amendment to claim 1 and the specification, both of which use the language of original claim 13 in the application as-filed.

Regarding the Examiner statements concerning use of "while" and "successively" together, applicants submit that this rejection is not moot in view of the amendment described above in which the word "successively" was deleted. Using Figure 1 and the specification at page 4, lines 15-24, and page 5, lines 1-13, it is clear to one skilled in the art that during the deposition process the bait 34 on spindle 36 are "translated" or moved upward.

Finally, the Examiner states that the particles could not stick together if the temperature were as low as applicants' claims. This is interpreted as saying that the particles would not stick together at temperatures below consolidation temperatures. However, This is exactly what applicants' specification teaches; namely, that one can form a preform at temperatures below consolidation temperatures. Applicants refer the Examiner to the specification at page 3, lines 8-9 in which applicants state:

Appeal Brief  
October 31, 2007  
Application No. 09/844,947

Appl. No.: 09/844,947  
Amend. Dated: 23 May 2007  
Reply to Office Action of: March 12, 2007

Consolidating the glass in a separate step eliminates the need to capture the soot at consolidation temperatures."

The Examiner also states that something that not be both "solid porous." The Examiner is in error with this statement. Molecular sieves are a well known "solid porous" materials. Applicants submit that these grounds for rejection should properly be dismissed.

The Examiner also states that applicant has acquiesced that there is no support for claims 20 and 21. Applicants traverses. Claims 20 and 21 are as follows.

20. (previously presented) The method of claim 1, wherein the minimum temperature is approximately 1200°C.

21. (previously presented) The method of claim 20, wherein the temperature at which the particles are deposited is approximately 200 to 500°C less than the minimum temperature.

Regarding claim 20, applicants refer the Examiner to the Specification on page 5, lines 16-18, in which applicants indicate that consolidation temperatures are "typically in the range of 1200 to 1900 °C." The lower temperature is 1200 °C. Those skilled in the art would understand that 1200 °C would be the minimum consolidation temperature. Applicants also refer the Examiner to page 3, lines 5-7 which indicate (1) that performing consolidation in a separate step allow eliminates the need to capture soot at consolidation temperatures and (2) that this allows the soot to be deposited at lower temperatures, typically 200 to 500 °C lower than in conventional boule processes. Applicants submit that the specification supports both claims 20 and 21 and that one skilled in the art would understand this and would understand exactly what these claims mean.

**THEREFORE**, in view of the foregoing amendments and the comments offered herein, applicants submit that the foregoing 35 U.S.C. § 112, first paragraph, rejection of claims 1, 2, 4-9, 13, 15, 20, 21, 23, and 24, as they may have been amended herein for clarity, may properly be withdrawn.

The Examiner has rejected claims 1, 2, 4-9, 13, 15, 20, 21, 23, and 24 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out

Appeal Brief  
October 31, 2007  
Application No. 09/844,947

Appl. No.: 09/844,947  
Amtd. Dated: 23 May 2007  
Reply to Office Action of: March 12, 2007

and distinctly claim the subject matter with applicants regards as the invention.  
Applicants traverse the rejection.

Applicants submit that the rejections given under 35 U.S.C. § 112, second paragraph, are moot in view of the amendments made to the specification, for clarity, and the arguments given above which are incorporated herein in their entirety.

#### 4. Conclusion

Based upon the above amendments, remarks, and papers of record, Applicant believes the pending claims of the above-captioned application are in allowable form and patentable over the prior art of record. Applicant respectfully requests reconsideration of the pending claims and a prompt Notice of Allowance thereon

Applicants hereby respectfully request that in the event that an extension of time is required to make this response timely, that the Office grant such time extension pursuant to 37 C.F.R. § 1.136(a) as necessary to make this Reply timely, and hereby authorizes the Office to charge any necessary fee or surcharge with respect to said time extension to the deposit account of the undersigned firm of attorneys, Deposit Account 03-3325.

Please direct any questions or comments to Walter M. Douglas at 607-974-2431.

23 May 2007  
Date

| CERTIFICATE OF TRANSMISSION<br>UNDER 37 C.F.R. § 1.14   |                                  |
|---|----------------------------------|
| I hereby certify that this paper and any papers referred to herein are being transmitted by facsimile to the U.S. Patent and Trademark Office at 571-273-8300 on: |                                  |
| 23 May 2007<br>Date   |                                  |
| <i>Walter M. Douglas</i><br>Walter M. Douglas   | <i>Walter M. Douglas</i><br>Date |

Respectfully submitted,  
CORNING INCORPORATED

*Walter M. Douglas*  
Walter M. Douglas  
Registration No. 34,510  
Corning Incorporated  
Patent Department  
Mail Stop SP-TI-03-1  
Corning, NY 14831

Appeal Brief  
October 31, 2007  
Application No. 09/844,947

### 3. Applicants' Response of December 21, 2006, pages 53-59.

Appl. No.: 09/844,947  
Amtd. Dated: October 25, 2006  
Reply to Office Action of: June 6, 2006

See # 86100

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : 09/844,947  
Applicant : Bradford G. Ackerman et al.  
Filed : April 27, 2001  
Title : METHOD FOR PRODUCING TITANIA-DOPED FUSED  
SILICA GLASS  
TC/A.U. : 1731  
Examiner : Peter Chin  
Docket No. : SP01- 095

Mail Stop: Amendments  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

#### AMENDMENT

Sir:  
In response to the Office Action of December 14, 2006 and the Office Action mailed June 6, 2006, originally responded to by mail on October 25, 2006 with a two (2) month extension of time to make the response timely.

Please amend the above-identified application as follows:

Amendments to the Specification begin on page 2 of this paper

Amendments to the Claims are reflected in the listing of claims which begins on page 3 of this paper.

Remarks/Arguments begin on page 6 of this paper.

Appeal Brief  
October 31, 2007  
Application No. 09/844,947

Appl. No.: 09/844,947  
Amdt. Dated: October 25, 2006  
Reply to Office Action of: June 6, 2006

**Amendments to the specification**

On page 2, after the paragraph ending at line 22, please insert the following

paragraph:

In another aspect the method of the invention is directed to synthesizing particles of silica and titania by delivering a mixture of a silica precursor and a titania precursor to a burner, growing a porous preform by successively depositing the particles on a deposition surface (herein also called a "bait") while rotating and translating the deposition surface relative to the burner, consolidating the porous preform into a partially dense glass.

Appeal Brief  
October 31, 2007  
Application No. 09/844,947

Appl. No.: 09/844,947  
Amtd. Dated: October 25, 2006  
Reply to Office Action of: June 6, 2006

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method for producing a fused silica glass containing titania, comprising:
  - synthesizing particles of silica and titania by delivering a mixture of silica precursor and a titania precursor to a burner;
  - growing a column of solid porous preform by successively depositing the particles on a deposition surface at a temperature below a minimum temperature at which the particles can consolidate either partially or fully into dense glass while successively translating the deposition surface away from the burner; and
  - subsequently consolidating the porous preform into dense glass.
2. (previously presented) The method of claim 1, wherein a translation speed of the deposition surface is adjusted to maintain a substantially constant distance between an end portion of the porous preform remote from the deposition surface and the burner during deposition.
3. (cancelled)
4. (previously presented) The method of claim 1, wherein consolidating the porous preform into dense glass comprises heating the porous preform to a temperature in a range from 1200 to 1900°C.
5. (original) The method of claim 1, further comprising dehydrating the porous preform by exposing the porous preform to a heated, halide-containing atmosphere prior to consolidation.
6. (original) The method of claim 5, where in the heated, halide-containing atmosphere comprises chlorine.
7. (original) The method of claim 5, where in the heated, halide-containing atmosphere comprises fluorine.



Appeal Brief  
October 31, 2007  
Application No. 09/844,947

Appl. No.: 09/844,947  
Amsh. Dated: October 25, 2006  
Reply to Office Action of: June 6, 2006

8. (original) The method of claim 5, wherein the temperature of the heated, halide-containing atmosphere is in a range from 900 to 1100°C.
9. (original) The method of claim 1, wherein the glass contains 2 to 12% by weight titania.
10. – 12 (previously cancelled)
13. (previously presented) The method of claim 5, wherein a translation speed of the deposition surface is adjusted to maintain a substantially constant distance between an end portion of the porous preform remote from the deposition surface and the burner during deposition.
14. (previously cancelled)
15. (previously presented) The method of claim 5, wherein consolidating the porous preform into dense glass comprises heating the porous preform to a temperature in a range from 1200 to 1900°C.
16. – 19. (previously cancelled)
20. (previously presented) The method of claim 1, wherein the minimum temperature is approximately 1200°C.
21. (previously presented) The method of claim 20, wherein the temperature at which the particles are deposited is approximately 200 to 500°C less than the minimum temperature.
22. (cancelled)
23. (previously presented) The method of claim 1, wherein a variation on coefficient of thermal expansion of the dense glass is in a range from -5 ppb/°C to +5 ppb/°C.

Appl. No.: 09/844,947  
Amdt. Dated: October 25, 2006  
Reply to Office Action of: June 6, 2006

#### REMARKS

##### 1. Claims

Claims 1, 2, 4-9, 13, 15, 20, 21, 23 and 24 remain in this application. Claim 1 has been amended herein. Claim 1 is the only independent claim in the application. Claims 2, 4-9, 13, 15, 20, 21, 23 and 24 depend from claims 1 either directly or indirectly.

Claim 1 has been amended by deleting the phrase "either partially or fully" so that the claim now reads "... can consolidate ~~either-partially-or-fully~~ into dense glass ...". While the specification does indicate that in the present invention the deposition temperatures are 200 - 500 °C lower than conventional processes which require the particles (soot) to be deposited at consolidation temperatures. [See page 3, lines 8-10.]

Applicants believe that the foregoing amendment does not introduce new matter into the specification.

##### 2. 35 U.S.C. §112 rejection

Claims 1, 2, 4-9, 13, 15, 20, 21, 23 and 24 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Specifically, the Examiner states that he could:

"find no support for the claimed [1] "column of solid porous perform"  
(or any other column), or [2] "solid porous", [3] "while successively  
translating", [4] "a deposition surface at a temperature below a  
minimum temperature at which the particles can consolidate either  
partially or fully into dense glass: - either explicit or implicit. This is  
deemed to be a prima facie showing on [sic] failure to comply with the  
requirement. The burden is now on Applicant to show the requirement  
is complied with, or to amend the claims so that they comply."  
{Numerals added.}

Applicants submit the following to show that the claims are fully supported by the specification.

1. Regarding [1], the phrase complained of is fully supported by the specification; for example, at on page 2, lines 18-22; page 3, lines 5-6 and 20-21; page 4, lines 15-19; page 5, lines 3-8; the Abstract; and Figure 1. Page 2, lines 18-22 describes synthesizing particles ("soot", see page 3, line 5) by delivering a silica precursor and a

Appeal Brief  
October 31, 2007  
Application No. 09/844,947

Appl. No.: 09/844,947  
Amdt. Dated: October 25, 2006  
Reply to Office Action of: June 6, 2006

titania precursor to burner and growing a porous perform by depositing the particles a on a deposition surface while rotating and translating the deposition surface relative to the burner. Particles are solids. Consequently, the perform that is formed is a solid perform. Combining these lines with Figure 1, particularly elements 34 and 40, and the specification on page 4, lines 15-19, it is clear that the preform can be formed on the "bait" (a term of art that describes a deposition surface) and that the perform can be formed in the form of a column. The column will be formed as one continues to raise spindle 36 while depositing the particle on perform 40 as it grows (see page 5, lines 7-8). In view of the foregoing, applicants submit that all the term of [1] that is complained of have been fully set forth in the specification.

2. Regarding [2], see [1] above. Particles are solids and the particles are used to form the "porous perform." Hence, implicitly the porous perform form by particles is a solid preform.
3. Regarding [3], the phrase complained of fully supported by the specification on page 2, lines 18-22; page 4, lines 15-24 and the Abstract. These lines clearly indicate that particles ( which are solids) are deposited to form a porous perform while the deposition surface (the bait)is being rotated and translated. In view of the foregoing, applicants submit that all the terms of [2] that are complained of have been fully set forth in the specification.
4. Regarding [4], claim 1 has been amended to remove the phrase "... either-partially-or fully. ." as described above in Section 1 of these remarks. With regard to the remainder of the phrase complained of, please refer to the specification on page 3, lines 8-10, and also page 1, line 28, to page 2, line 7. The latter refers to "conventional processes" in which the soot (particles) is captured at consolidation temperatures, a process which leads to problems such as variations in composition which in turn lead to non-uniform thermal expansion properties. In contrast, the invention as described on page 3, lines 8-10, clearly indicates that the present invention eliminates the need to capture soot at consolidation temperatures. The present invention allows one to capture soot at temperatures 200-500 °C lower than the conventional process.

Appeal Brief  
October 31, 2007  
Application No. 09/844,947

Appl. No.: 09/844,947  
Amdt. Dated: October 25, 2006  
Reply to Office Action of: June 6, 2006

Applicants respectfully submit that in view of the foregoing facts and arguments, the invention as now claimed is fully described in the specification. Consequently, applicants respectfully submit that it is proper for the Examiner to withdraw the §112, first paragraph, rejection of claims 1, 2, 4-9, 13, 15, 20, 21, 23 and 24.

**3. Oath/Declaration**

The Examiner has indicated that the oath/declaration is defective because it did not identify the application by number and filing date. A new oath/declaration is enclosed with this paper.

**4. Conclusion**

Applicants respectfully submit that all items listed in the Office Actions have been treated herein, and that the pending claims are now in condition for allowance. If there are further items whose speedy resolution would facilitate prosecution and allowance, applicants' undersigned attorney respectfully requests that the Examiner call him so that the items can be discussed and if possible suitable amendments entered into the case by Examiner's amendment.

Applicant believes that a two (2) month extension of time is necessary to make this Reply timely. Applicants respectfully request that the Office grant such time extension pursuant to 37 C.F.R. § 1.136(a) as necessary to make this Reply timely, and hereby authorizes the Office to charge any necessary fee or surcharge with respect to said time extension to the deposit account of the undersigned firm of attorneys, Deposit Account 03-3325.

Please direct any questions or comments to Walter M. Douglas at (607) 974-2431.

*21 December 2006*  
Date

|   |                                  |
|---|----------------------------------|
| <b>CERTIFICATE OF TRANSMISSION</b><br><i>(UNDER 37 C.F.R. § 1.136)</i>  |                                  |
| I hereby certify that this paper and any papers referred to herein are being transmitted by facsimile to the U.S. Patent and Trademark Office at 703-872-9300 on: |                                  |
| <i>21 December 2006</i><br>Date   |                                  |
| <i>Walter M. Douglas</i><br>Walter M. Douglas   | <i>Walter M. Douglas</i><br>Dein |

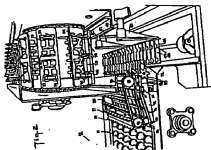
Respectfully submitted,  
CORNING INCORPORATED

*Walter M. Douglas 21 Dec 2006*  
Walter M. Douglas  
Registration No. 34,510  
Corning Incorporated  
Patent Department  
Mail Stop SP-TI-03-1  
Corning, NY 14831



4,305,373 ('73 patent). While Diamond as  
seried all of these patents at trial, only the '505  
and '934 patents appear in this appeal. The  
'505 patent relates generally to "front end"  
processing of chips, while the '934 patent re-  
lates generally to "back end" processing of  
chips.

The "front end" process first weights the eggs, then introduces them into a confining station where a high intensity light source checks for defects such as blood spots or cracks. The eggs for defects such as blood spots or cracks. The process then weights the eggs. A computer takes this information for use in sorting the eggs at a later point. Figure 2 of the 305 patent illustrates an embodiment of the invention designed to weigh eggs and to detect defects in the egg.



8. *Procedural* – the process of the trial

Claim 24 of the '305 patent corresponds generally to the subject matter of Fig. 2:

24. A method for advancing a plurality of rows of eggs from a candling station through a plurality of weighing stations in a continuous, overlapping

conveying eggs from said candling station to elongated guide means disposed adjacent to said candling station, continuously advancing said eggs on said guide means through said weighing stations, simultaneously with said step of advancing, weighing said eggs at said weighing stations.

Próbki s

It is right to argue interpretation of "guiding principles" on appeal, even though it seems to be a matter of fact. But, even though it is a matter of fact, it is not a matter of law. The guiding principles are not to be applied mechanically, but rather, they are to be applied in a way that is consistent with the overall purpose of the patent. The guiding principles are to be applied in a way that is consistent with the overall purpose of the patent.

[illegible][illegible]

(4) **Infringement — Literal infringement** (321618)  
 more satisfactory, since specification indicates that element process holds and moves egg at same time, and since terms "holding station" does not require lack of motion.  
 Particulars patents — General and mechanical — Egg sorting  
 4,519,464, McWay and Thomas, egg holding system, judgment of noninfringement affirmed.  
 4,519,395, Thomas, egg transfer system, judgment of noninfringement reversed.

**Patient reconstruction — Claims — Process**  
 (125-1098)

Accused egg sorting method does not meet, either literally or under doctrine of equivalence, limitation of asserted method claim that "the egg sorting process includes means for detecting eggs having cracks or defects."

1997

It is right to argue interpretation of "guiding principles" on appeal, even though it seems to be a matter of fact. But, even though it is a matter of fact, it is not a matter of law. The guiding principles are not to be applied mechanically, but rather, they are to be applied in a way that is consistent with the overall purpose of the patent. The guiding principles are to be applied in a way that is consistent with the overall purpose of the patent.

[illegible][illegible]

(4) **Infringement — Literal infringement** (321618)  
 more satisfactory, since specification indicates that element process holds and moves egg at same time, and since terms "holding station" does not require lack of motion.  
 Particulars patents — General and mechanical — Egg sorting  
 4,519,464, McWay and Thomas, egg holding system, judgment of noninfringement affirmed.  
 4,519,395, Thomas, egg transfer system, judgment of noninfringement reversed.

**Patient reconstruction — Claims — Process**  
 (125-1098)

Accused egg sorting method does not meet, either literally or under doctrine of equivalence, limitation of asserted method claim that "the egg sorting process includes means for detecting eggs having cracks or defects." Appeal from the U.S. District Court for the Eastern District of Pennsylvania, Kaufman v. Action by Meba B.V., Stadler B.V., and others, No. 76-1001, 1977-1 CB 1001.

FPS Food Processing Systems Inc. appeals from a summary judgment for defendant DFD Food Automation Inc. for destruction of evidence.

|        |                                      |      |
|--------|--------------------------------------|------|
| 18902d | Moba B.V. v. Diamond Automation Inc. | 1433 |
|--------|--------------------------------------|------|

1454. "A district court may overturn a jury verdict only if upon the record before the jury, reasonable jurors could not have reached that verdict." *LNP Eng'g Plastics, Inc. v. Miller*, 775 F.2d 1347, 1353, 61 U.S.W.2d 1161, 275 R&D 1347, 1353, 61

USPQ2d 1193, 11197 (Fed. Cir. 2001). Claim language defines claim scope. *See* *In re N. Matsushita Elec. Corp.*, 775 F.2d 1107, 11121, 227 USPQ 577, 586 (Fed. Cir. 1985).

renewed for continued use. The court moved for entry of JMOL under Rule 50(a) of the Federal Rules of Civil Procedure that FPS infringed and induced infringement of the patents. In its February 25, 2000 verdict, the court found that those patents were not invalid

July 1999, the district court granted summary judgment in favor of Diamond and not infringed. On March 6, 2000, the district court denied Diamond's February 22, 2000 JMOL motion, and entered judgment in favor of Diamond on the validity issues and in favor of Diamond on the validity issues. District court's judgment is affirmed. *See* *infra*, note 1.

[illegible]

patent and claim 28 of the '499 patent were methods used in both the Moba Omala and the Saseket Saseket. Disputed also contends that FPS has induced its customers to infringe those claims by selling them the Moba Omala those claims by selling them the Saseket Saseket.

and the Standard Selecta and by training appeals to use those machines. Diamond appeals, therefore, the district court's denial of JMOL on these issues. FPS cross-appeals the jury's determination that claim 24 of the '305 patent shows each limitation of the asserted claim.

and claim 23 of the '994 patent are not live-  
ing and claim 28 of the '994 patent are not live-  
ing. Because Diamond no longer purports any  
claims arising from the '444 or '373 patents, or  
claims arising from the '444 or '373 patents, this court need not  
address those questions. This court has juris-

U.S.C. § 1295(a)(1) (2000).  
II.

This court reviews claim construction *de novo*. *See* *Grain Processing Corp. v. Am. Alcolac, Inc.*, 138 F.3d 1443, 1454, 46 USPQ2d 1169, 1172 (Fed. Cir. 1998) (en banc). This court affords substantial deference to a jury's findings of fact. *See* *Grain Processing Corp. v. Am. Alcolac, Inc.*, 138 F.3d 1443, 1454, 46 USPQ2d 1169, 1172 (Fed. Cir. 1998) (en banc). In this case, the record shows that customers use the method of the Mobo O-Mat. *See* *Grain Processing Corp. v. Am. Alcolac, Inc.*, 138 F.3d 1443, 1454, 46 USPQ2d 1169, 1172 (Fed. Cir. 1998) (en banc). In this case, the record shows that customers use the method of the Mobo O-Mat. *See* *Grain Processing Corp. v. Am. Alcolac, Inc.*, 138 F.3d 1443, 1454, 46 USPQ2d 1169, 1172 (Fed. Cir. 1998) (en banc).

to process eggs in the United States, show infringing. Diagram needs to prove that the Moba Ossia performs method of claim 24 when it processes eggs.

(1) Based upon its claim construction of INOL without deference, reversing jury's substantial evidence does not support a jury's factual findings or if the law cannot support the factual conclusions undermining the jury's

\*guiding steps

138 F.3d at 138, 139 (CA-11, 1998) (quoting 18 U.S.C. § 1030(a)(5)(B)).

|     |   |   |          |
|-----|---|---|----------|
| 432 | guiding said eggs from said weighing stations first to a plurality of egg holding stations located downstream of said guide | delivering eggs to said receiving station in parallel spaced apart rows on said first conveyor means, | 66 USFNY |
|-----|---|---|----------|



means and then to a plurality of locations longitudinally spaced apart from and substantially horizontally co-planar with said holding stations.

guiding further eggs to said plurality of holding stations, and lifting said eggs simultaneously from said holding stations and said plurality of longitudinally spaced-apart rows of the first conveyor means, and delivering to a common member wherein and deliver to a common member the eggs released from the parallel spaced-apart rows of the first conveyor means,

receiving said eggs in the receiving means disposed at said receiving station whereby the released eggs from both said parallel spaced apart rows of eggs fall on

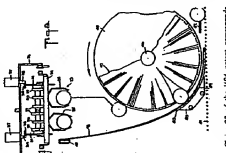
from egg" processing and transfers them to an overhead conveyor. This conveyor carries the eggs in rows until dropping off each individual egg at a different receiving station based on the information in the computer. As

Each station, the eggs are either packaged or discarded. Figure 8 of the 404 patent illustrates an embodiment of the invention designed to receive eggs from an overhead conveyor for transport to a rack.



Claim 28 of the '494 patent corresponds generally to the subject matter of Fig. 8.

first cooversey means to a receiving station, comprising the steps of,



To position the eggs for lifting, the Mobilizer employs a continuously moving transport conveyor that allows without stopping as each egg passes under the overhead conveyor.

Moreover, as this court has repeatedly stated, the best indicator of claim meaning is the claim language. "[t]he receiving means must be retained downwardly (i.e. toward the





Appeal Brief  
October 31, 2007  
Application No. 09/844,947

66 USPO2d  
Mada R V v Diamond Automation Inc.[illegible][illegible]

On remand the court should determine whether a person of skill in the art would be able to obtain the claimed invention from the written description, including information obtainable from the deposit of the claimed sequences, subsequent publications of the claimed sequences, and numerous variants and mixtures sufficient to demonstrate possession of the general scope of the claims.

ferent invention than was the original claim, it is proper to inquire whether the newly claimed subject matter was described in the prior art. In *Ex parte Lutz*,<sup>1</sup> the Federal Circuit affirmed the Board's finding that the applicant's invention was not novel over the prior art. The Board had found that the applicant's invention was not novel over the prior art. The Board had found that the applicant's invention was not novel over the prior art.

66 USPQ2d 99

tional descriptions of genetic material necessarily fall as a matter of law to meet the written description requirement; rather, the requirement may be satisfied if in the knowledge of the art the disclosed function is sufficiently correlated to a particular, known structure.

*Auer*, 319 F.2d at 1337.

[5] The text for compliance with § 112 has always required sufficient information in the original disclosure to show that the inventor possessed the invention at the time of the original filing. See *Carr-Saunders*, 393 F.2d at 1561 ("Adequate description of the invention... guards against the inventor's overreaching by insisting that he recount his invention in such detail that his future claims can be determined or anticipated within his original creation"). The prosecution text requires assessment from the viewpoint of one of skill in the art. *Id.* at 1563-64 ("the applicant must...")

covery with reasonable clarity to those readers in the art, that is, of the filing date sought, and she was in possession of the information in question.

*Atlantic Telecommunications Co. v. American Telephone & Telegraph Co.*, 208 F.3d 989, 997 (CA-2d, 2000) (en banc).

54 U.S.C. § 552, 1232 (Fed. Cl. 2000) (en banc).

(7) The inventor, the applicant, to describe exactly the subject matter claimed, (instead the description must detail) allow persons of ordinary skill in the art to recognize that (the inventor) invented what is claimed" (citation omitted). In *Exco and Amgen*, the court acknowledged that the specification that taught one of skill in the art to make the invention was also composed of such statements. The invention also possessed that same similarity in that case, the *Exco and Amgen* case, the *Exco and Amgen* case of disclosures because one can only determine from the specification that the inventor possessed the invention at the time of filing.

Accordingly, substantial evidence supports the jury's finding that the 300 patent is not invalid for lack of an adequate written description. The 300 patent specification describes every element of claim 24 in sufficient detail so that one of ordinary skill in the art would be able to make and use the invention. The fact that the inventor possessed the invention at the time of filing FRS's continuation application in 1974 does not substantially affect the validity of the 300 patent. The fact that the inventor filed FRS's continuation application with close living eggs from a moving conveyor merely reveals his non-inventive progress in the state of the art. As such, the 300 patent is the claim of a validity challenge. In the jury found that one of skill in the art would have been able to make and use the invention at the time of filing FRS's continuation application. The jury found that the inventor would have been able to make and use the invention at the time of filing FRS's continuation application. The jury found that the inventor would have been able to make and use the invention at the time of filing FRS's continuation application.

Mabo R v Q, Nondam Automations Inc.

tial record evidence. Therefore, the trial court correctly determined that claim 24 is not valid for lack of an adequate written description.

B. The patent specification must disclose information sufficient to enable those skilled in the art to make and use the claimed invention.

C. U.S.C. § 112, ¶ 1. That some experiments are required to practice the claimed invention is permissible, so long as it is not undue.

D. Powder Co., v. F&L Fed'l Tech. Resources Corp., 750 F.2d 1659, 1676, 224 USPQ2d 408 (CA-9, Cir. 1984). Establishment under this standard requires more than mere speculation.

E. U.S.C. § 112, ¶ 1, is a question of law that ordinarily involves summary review de novo. Malvern Research Corp. v. CBS, Inc., 793 F.2d 1261, 1268, 228 USPQ2d 1025, 1032 (Fed. Cir. 1986).

F. See also In re Jory's underlying factual determinations regarding whether the prior art was related to establishment for substantial evidence purposes.

G. Mitsubishi Elec. Corp. v. Ampex Corp., No. F-3d 1300, 1309, 51 USPQ2d 1910, 1916 (Cir. Ct. 1999).

[illegible]

Anticipation under 35 U.S.C. § 102 requires that a single prior art reference disclose each and every limitation of the claimed invention. *Electro Med. Sys. S.A. v. Cooper L. Sci.*, 34 F.3d 1048, 1052, 32 USPQ2d 10 1019 (Fed. Cir. 1994). This court revises the *Cooper* conclusions on anticipation for substantial evidence. *Advanced Display Sys.*, 212 P.3d

FPS argues that claim 24 of the '505 patent is anticipated by its own Mobia prior art: chineses, such as the Types 4-9 or Type 68 chineses that provided the basis for the Om

[illegible][illegible]

On remand the court should determine whether a portion of skill in the work product is information obtainable from the depersonalized references, subsequent to the creation of the work product, in the chain of reference. Subsequent to the creation of the work product, the information is available to the public through the chain of reference. The court should determine whether the information is available to the public through the chain of reference. The court should determine whether the information is available to the public through the chain of reference.

ferenz invention than was the original claim, it is proper to inquire whether the newly claimed subject matter was described in the parent application when filed as the invention of the inventor. That is the essence of the so-called "enablement" test. In *Exco*, 296 P.3d at 1328. Similarly, in this court's most recent pronouncement, it noted: "More recently, in *Exco Blockem*, we clarified that *Exco Lilly* did not hold that all func-

tional descriptions of genetic material essentially fail as a matter of law to meet the written description requirement; rather, the requirement may be satisfied if in the knowledge of the art the disclosed function is sufficiently correlated to a particular, known structure.

[5] The test for compliance with § 112 has always required sufficient information in the original disclosure to show that the inventor possessed the invention at the time of the original filing. See *MacCam*, 935 F.2d at 1561 ("Adequate description of the invention guards against the inventor's overreaching by insisting that he recount his invention in such detail that his future claims can be determined

to be encompassed within his original creation" (quoting *Grain Processing*). The possession test requires testimony from the viewpoint of one of skill in the art. *Id.* at 1563-64 ("the applicant must convey with reasonable clarity to those skilled in the art that as of the filing date sought, he

[illegible]

From 1990 to 2000, the

Accordingly, substantial evidence supported the jury's finding that the '503 patent is not valid for lack of an adequate written description. The '503 patent specification described every element of claim 24 in sufficient detail so that one of ordinary skill in the art would recognize that the inventor possessed the invention at the time of filing. PFS's contention that the '503 patent does not adequately describe lifting eggs from a moving conveyor is merely an after-the-fact, non-inventive argument.

the jury found that one of skill to the would discern possession of the invention the time of filing, a finding supported by

tal record evidence. Therefore, the trial court correctly determined that claim 24 is not valid for lack of an adequate written description.

B. The patent specification must disclose information sufficient to enable those skilled in the art to make and use the claimed invention. 35 U.S.C. § 112, 1. That some experimental data is required to practice the claimed invention is permissible, so long as it is not unduly burdensome. *See, e.g., In re Fisher*, 422 F.2d 1069, 157 F.2d 409, 40 USPQ2d 409 (CA-9, 1970). *See also, In re Powder Co.*, 561 F.2d 1576, 224 USPQ2d 409 (CA-9, 1977). *See also, In re Laidlaw*, 730 F.2d 1569, 257 USPQ2d 1569 (CA-9, 1984). Enableness under 35 U.S.C. § 112, 1, is a question of law that this court reviews *de novo*. *Moderation Resources v. C&S, Inc.*, 793 F.2d 1261, 1268, 225 USPQ2d 1261, 1268 (CA-9, 1986). This court reviews a jury's underlying factual determinations related to enablement for substantial evidence. *See, e.g., Mitsubishi Elec. Corp. v. Ampec Corp.*, 734 F.2d 1309, 1309, 25 USPQ2d 1910, 1910 (CA-9, 1984).

*id.*, 612 C.F.R. contended that the specification did not enable one of ordinary skill in the art to make a non-invasive assay without undue experimentation. Nevertheless, FRS presented no record evidence recounting the amount of experimentation one of ordinary skill would require to develop the conveyor in view of the Moba Claims in view of the 15 pages of disclosure. Rather, FRS asked it to draw the inference from limited evidence experimentation based on limited general testimony of the development taken separately from the disclosures of the '903 patent. The court found that evidence insufficient to prove undue experimental evidence hence, the court holds that the jury that claim 24 was

invalid for lack of authentication.

Anticipation under 35 U.S.C. § 102 requires that a single prior art reference discloses each and every limitation of the claimed invention. *Eli Lilly and Co. v. Cooper*, 10 F.3d 1048, 1052, 33 USPQ2d 1010, 1012 (CA-7, 1994). This court reviews a party's conclusions on anticipation for substantial evidence. *Advanced Display Sys., 212 F.3d at 1231*.

The trial court based upon greater confusion. The Supreme Court also seemed that the specification was not enabled the claimed invention. Thus, the trial court asked this jury to determine whether one of skill in the art would have been able to make and use the invention as recited in the patent's specification. Then the trial court asked the jury to look at the specifications against the invention. Thus, the jury was asked to determine whether the invention was "enabled" by the specifications.

In the case of *Grain Processing Corp. v. American Corn Processors*,<sup>10</sup> the Federal Circuit case law, FPS disclosed that jury to decide that the patent's disclosure can enable a skilled artisan to make and use the invention, but still not be able to practice the entire invention, but still not be able to practice the entire invention that same artisan that the inventor was

matter not disclosed by the original claim, and specification. A section of title 35, specifically § 112, directly prohibits the addition of new matter to a disclosure, either in the claim or the rest of the patent application. Nonetheless, this court's predecessor decided to use § 112 to prevent the addition of new matter claims, rather than the specific provisions

<sup>1</sup> See generally *Eastview, Inc. v. Gen-Pro, Inc.*, 63 USPQ2d 1008, 1028 (Fed. Cl. 2007) (quoting *Gen-Pro, Inc. v. Eastview, Inc.*, 63 USPQ2d 1008, 1028 (Fed. Cl. 2007) (rebutting on basis denied) (Rader, J., dissenting) (arguing from every written description case except *Ally*, show they only employed the doctrine to police prior art).





2. Verve v. Crane Cam Inc., 64 USPQ2d 1051 Fed Cir. 2002), pages 70-72

1981

Verve LLC v Crane Cam Inc.

63 USPQ2d

Adventer Respiratory Inc. v. Edwards Inc.

43 USPQ2d

1000

to determine whether inequitable conduct occurred. It is to be understood that the Federal Circuit's decision in *Verve* is not binding on the district court. First, the party alleging inequitable conduct must make a threshold showing that the defendant's conduct was material. The district court found that the defendant's conduct was material. The district court also found that the defendant's conduct was inequitable. The district court's decision is affirmed.

Based upon these circumstances, Defendant was not entitled to summary judgment. Defendant's motion for summary judgment is denied. Defendant's motion for summary judgment is denied.

Other Allegations of Inequitable Conduct

The district court found that the defendant's conduct was material. The district court also found that the defendant's conduct was inequitable. The district court's decision is affirmed.

Standard of Review

Summary judgment is proper if there are no genuine issues of material fact and the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(c). The court must view the evidence and the inferences which can be drawn therefrom in the light most favorable to the nonmoving party. *Adventer Respiratory Inc. v. Edwards Inc.*, 43 USPQ2d 1000, 1001 (Fed. Cir. 2002).

The district court found that the defendant's conduct was material. The district court also found that the defendant's conduct was inequitable. The district court's decision is affirmed.

The moving party bears the burden of proving that the defendant's conduct was material and that it is entitled to judgment as a matter of law. *Adventer Respiratory Inc. v. Edwards Inc.*, 43 USPQ2d 1000, 1001 (Fed. Cir. 2002).

Defendant alleges that Plaintiff failed to disclose material information to the Patent Office. Plaintiff denies this allegation. The district court found that the defendant's conduct was material. The district court also found that the defendant's conduct was inequitable. The district court's decision is affirmed.

Defendant alleges that Plaintiff failed to disclose material information to the Patent Office. Plaintiff denies this allegation. The district court found that the defendant's conduct was material. The district court also found that the defendant's conduct was inequitable. The district court's decision is affirmed.

The district court found that the defendant's conduct was material. The district court also found that the defendant's conduct was inequitable. The district court's decision is affirmed.

Defendant alleges that Plaintiff failed to disclose material information to the Patent Office. Plaintiff denies this allegation. The district court found that the defendant's conduct was material. The district court also found that the defendant's conduct was inequitable. The district court's decision is affirmed.

Defendant alleges that Plaintiff failed to disclose material information to the Patent Office. Plaintiff denies this allegation. The district court found that the defendant's conduct was material. The district court also found that the defendant's conduct was inequitable. The district court's decision is affirmed.

The district court found that the defendant's conduct was material. The district court also found that the defendant's conduct was inequitable. The district court's decision is affirmed.

Defendant alleges that Plaintiff failed to disclose material information to the Patent Office. Plaintiff denies this allegation. The district court found that the defendant's conduct was material. The district court also found that the defendant's conduct was inequitable. The district court's decision is affirmed.







Appeal Brief  
October 31, 2007  
Application No. 09/844,947

**X. RELATED PROCEEDINGS APPENDIX**

**NONE**